

STATEMENT OF WORK
Comprehensive Nutrient Management Plan
New York State

These deliverables apply to this individual plan. For other planned practice deliverables refer to those specific Statements of Work.

PLANNING

NOTE: A comprehensive nutrient management plan (CNMP) should address all land units that the animal feeding operation (AFO) owner and/or operator owns or has decision-making authority over and on which manure and organic by-products will be generated, handled, stored, or applied.

NOTE: NRCS policy requires that technical assistance provided for conservation planning follow the guidance and processes in the NRCS National Planning Procedures Handbook (NPPH). For the purposes of providing conservation planning technical assistance, Technical Service Providers are to complete the actions required in the first seven Steps of the NPPH planning process. All deliverables below are based on that requirement. For detailed guidance, planners should refer to the appropriate section of the NRCS NPPH (CNMP Technical Guidance).

Deliverables:

A. General information:

1. Plan view map showing farmstead, tracts, wells, and water courses
2. Farm name
3. Address
4. Farm manager identified
5. Planner identified
6. Associate planner(s) identified
7. Other consultants used by the operation identified
8. County
9. Watershed
10. Watershed concerns identified
11. Farm narrative
12. Type of enterprise identified (dairy, swine, etc.)
13. Objectives of the farm enterprise/business objectives
14. Number of animal units and age classes identified
15. Attributes for all fields have been identified and referenced or cross – referenced to a map. Attributes include:
 - a. Field number (Farm Service Agency)
 - b. Owner identification/rented
 - c. Acreage (Farm Service Agency)
 - d. Land use (cropland, hayland, pasture, etc.)
 - e. Perennial/intermittent water bodies and concentrated flow patterns are marked
 - f. Soil loss calculated using Rusle2 (if there is a soil erosion concern)
 - g. Program enrollment (if applicable)
 - h. Utilities present
 - i. Cultural resources present

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16. Conservation plan map with planned and existing Best Management Practices identified or cross – referenced, including manure spreading setbacks and adjacent wells or residences
17. Soil maps, soil descriptions, and topographic maps
18. *AEM Tier 1 & Tier 2 summary
19. Assistance notes (NRCS-CONS-6 equivalent)
20. Environmental effects (NRCS-CPA-52)
21. Plan has been checked for cross – compliance with all applicable federal programs (Food security Act – HEL and wetland conservation)

*AEM: Agricultural Environmental Management Plan (New York State Nutrient Management Program)

B. Nutrient Management

• Soil management/Erosion control

1. Preplan erosion (sheet, rill and concentrated flow erosion) conditions have been assessed and described for all fields (must include soil loss worksheets)
2. The following have been identified for all crop fields:
 - a) Primary soil type
 - b) Crop rotations and year in rotation field by field (e.g. CS₂ of CS₃AGE₅)
 - c) Type, timing, depth and sequence of tillage
 - d) Description of crop residue use
3. Areas of concentrated runoff have been addressed on all fields where manure is to be spread utilizing the NY P-index (flow distances)
4. BMP decision – Alternatives and existing BMPs for each field have been identified and appear on a record of decisions form (NRCS-CPA-68 or 69 or similar form)
5. BMPs appear appropriate to address the concern and site conditions. If appropriate, the following information has been provided:
 - a) BMP application dates
 - b) BMP quantities (units)
6. Operation and Maintenance components for all BMPs have been identified and reviewed with the farm manager. (include evidence of producer knowledge; e.g. initials of producer)

• Fertility program

1. The potential risk for “N” loss due to leaching has been evaluated for each field using the NY N-Leaching index
2. The potential loss of nutrients due to surface runoff has been evaluated for each field using the NY P-index and the New York CNMP Process Guideline
3. Risk indicator tools shall be used for evaluation and recommendation of Best Management Practices to reduce risk

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4. All fields have recent soil tests (within 3 years) and the soil lab and extraction method have been identified (check Cornell's web site for calibrated soil labs <http://nmisp.css.cornell.edu/>)
5. Soil pH is maintained in the appropriate range for the crop/rotation
6. Fertilization recommendations account for manure applications, soil N supply and residual N from legumes/sods
7. Fertilization recommendations reflect reasonable or historic crop yields and are prepared according to Cornell University soil fertility guidelines.
8. Fertilizer equipment, planters, drills has been or will be calibrated
9. Provision is made to record:
 - a) Fertilizer rate, form, grade, and placement, and timing (required)
 - b) Method of application
 - c) Date of application
 - d) Fields where Pre-Side-Dressed Nitrogen Testing (PSNT) was used and action was taken
 - e) Equipment calibration

• **Manure/Waste utilization**

1. Bedding by livestock class:
 - a) Material used
 - b) Quantity used
2. Pasture days for each livestock class
3. Annual Manure/Waste production has been estimated (manure, bedding, milk center)
4. Manure/Waste of all types and sources have been sampled and analyzed
5. All fields have been assigned a risk level for manure/waste application (NY590 ; NY P-index and N-Leaching index ; NY CNMP Process Guideline used to assess risk factors). Planner should use professional judgment to identify fields with high runoff risk in case of an extreme weather condition (rainfall in a winter month on frozen ground, etc.).
6. Manure/Waste produced in relation to available or spreadable acres have been assessed
7. Manure/Waste spreading schedule have been developed
 - a) Manure/Waste spreading schedule considering the "N" needs of the crop
 - b) The NY P-index is implemented on fields as appropriate
8. Manure/Waste application method identified
9. Manure/Waste incorporation schedule developed
10. All Manure/Waste application equipment has been sized and calibrated

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11. Manure/Waste storage needs and requirements based on fields available for daily spreading have been assessed and located
12. Proper locations of manure pile areas, if applicable, have been identified
13. Feed nutrient management has been considered based on the NY 592 standard
14. If excess nutrients exist, decisions have been made, or alternatives presented for off-farm use of the manure:
 - a) Volume and analysis of manure to be exported has been identified
 - b) Entity to receive the excess manure has been identified
 - c) There is documentation in the plan that the entity to receive the manure was informed that the manure should be applied at agronomically acceptable rates, and where technical assistance is available
15. Fields to receive – over agronomic manure rates have been identified and are appropriate (manure analysis must be provided)
16. Activities are consistent with soil management and fertility program. Proper evaluation and recommended Best Management Practices to treat the concerns are indicated. Measures have been planned to address moderating the high:
 - a) N-Leaching (2-10 or >10 using the same evaluation process)
 - b) Surface runoff
17. Provision has been made to record:
 - a) Manure analysis
 - b) Equipment calibration
 - c) Manure application (timing, method and incorporation)
18. Pathogen issues have been addressed
19. Odor and neighbor considerations have been addressed (i.g. water quality violations or odor complaints are reported to DEC by neighbors or others)

• Manure transfer and storage – Existing facilities

1. Storage facility(s) meet NRCS standards or is performing to its intended purpose (evaluation to be performed by a qualified person)
2. Capacity identified in terms of volume and time (gauging device must be installed according to DEC)
3. Waste sources have been identified
4. Alternatives for odor control have been provided
5. System operation and maintenance components have been identified
6. Safety features and devices have been addressed

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7. An emergency action plan has been developed

- **Manure transfer and storage – Proposed facilities**

1. Capacity identified in terms of volume and time
2. Waste sources have been identified
3. The location of the facility is identified
4. The system has been sketched
5. The system has been described
6. The system is appropriate for the site
7. The system is appropriate for the farm's labor force
8. Alternatives for odor control have been provided
9. System operation and maintenance components have been identified and reviewed with the producer
10. An emergency action plan has been developed
11. Safety features and devices have been addressed
12. An application date has been identified

C. *Concentrated sources*

- **Barnyard runoff management**

1. Sketch of barnyard components (existing and proposed)
2. Statement if barnyard is to be eliminated
3. Purpose of the barnyard is identified
4. Number of livestock identified
5. Type of livestock identified
6. Existing BMPs and BMP decisions/alternatives have been identified with:
 - a) Application dates, and
 - b) Quantities
7. Outside clean water exclusion:
 - a) Runoff from watershed above the barn has been adequately diverted and conducted to a safe outlet

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- b) Roof runoff has been adequately captured and conducted to a safe outlet
 - c) If a water course flows through the site:
 - I. Have adequate measures been taken to exclude livestock; and
 - II. Filter, divert, or exclude pollutants
 - d) Groundwater seepage concerns, if they exist, are adequately treated
 - e) Concerns from other water sources such as troughs are addressed
8. Polluted water control:
- a) Appropriate measures such as relocation, size reduction, roofing, and heavy use areas have been utilized
 - b) Appropriate curbs or buck walls are, or will be, in place for adequate cleaning and collection
 - c) A cleaning schedule has been developed for the barnyard
 - d) All polluted runoff is conveyed to an appropriate facility, basin, and/or filter area
9. General barnyard concerns:
- a) Livestock is fenced from Best Management Practices and water courses
 - b) Operation and Maintenance needs have been identified for all components and reviewed with the farm manager
 - c) Overall proposed treatment is consistent with watershed concerns
10. Milking center wash water:
- a) Parlor system or milk house identified
 - b) Milking herd size is identified
 - c) Estimates of waste quantities are reasonable
 - d) Waste is transferred to a manure storage facility
 - e) If waste is not transferred to a storage facility:
 - i. BMPs or proposed BMPs are identified with application dates and quantities
 - ii. Waste and treated milk is adequately disposed of
 - iii. Wastewater treatment or disposal system is adequate or planned:
 - For the site (soils, bedrock, proximity to water body, etc.)
 - For the size and management of the operation
 - Is consistent with watershed concerns and local regulations
 - f) System Operation and Maintenance components have been identified for all Best Management Practices and reviewed with the farm manager , including management components

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11. Silage leachate control:

- a) If moisture control at harvest is the management technique used to eliminate concern, is there a need for contingency plan? (in reality this can not be the only barrier)
- b) Best Management Practices/ decisions / alternatives have been identified with application dates and quantities
- c) Outside water including subsurface water has been excluded and diverted to a safe adequate outlet
- d) Leachate reduction has been considered
 - i. Moisture control at harvest
 - ii. Roofing or covering
- e) Concentrated flows are collected and properly disposed of , or treated
- f) High (diluted) flows enter an appropriate filter area
- g) System Operation and Maintenance components have been identified for all Best Management Practices and have been reviewed with the farm manager

D. Other considerations

- 1. Dead animals are disposed of in an appropriate manner (rendering; composting, etc.)

REFERENCES

- NRCS National Planning Procedures Handbook (CNMP Technical Guidance)
- NRCS Field Office Technical Guide - NY
- NRCS National Engineering Manual
- NRCS National Agronomy Manual
- NRCS Environmental Compliance Handbook
- NRCS Cultural Resources Handbook
- NY Phosphorus Runoff Index (<http://www.css.cornell.edu/nmsp/projects/pindex.asp>)
- Cornell Guidelines, NY N-Leaching Index, NY P-index (<http://nmsp.css.cornell.edu/>)
- NY CNMP Process Guideline